

WHAT IS CLAIMED IS:

1. A moldable composite material, comprising:
a batting layer of nonwoven batting material, the nonwoven batting
5 material including low melt temperature fibers and high melt
temperature fibers;
a cushion layer of nonwoven cushion material having a first side
disposed adjacent to said batting layer and a second side
disposed opposite to said batting layer, the nonwoven cushion
10 material including cushion fibers;
a face textile disposed adjacent to the second side of said cushion
layer;
an adhesive adhering said face textile to said cushion layer;
wherein at least a portion of the cushion fibers in said cushion layer
15 interlace with the nonwoven batting material of said batting
layer.
2. The moldable composite material according to claim 1, wherein the low
melt temperature fibers and the high melt temperature ~~fibers~~ of the nonwoven
20 batting material, the cushion fibers of the nonwoven cushion material, the face
textile, and the adhesive are all of the same chemical nature.
3. The moldable composite material according to claim 1, wherein the low
melt temperature fibers and the high melt temperature fibers of the nonwoven
25 batting material, the cushion fibers of the nonwoven cushion material, the face
textile, and the adhesive are all formed of the same material selected from the
group consisting of: polyolefin and polyester.

4. The moldable composite material according to claim 1, wherein the low melt temperature fibers comprise between about 50% to about 85% of the total weight of said batting layer of nonwoven batting material.
- 5 5. The moldable composite material according to claim 1, wherein the low melt temperature fibers comprise about 70% of the total weight of said batting layer of nonwoven batting material.
- 10 6. The moldable composite material according to claim 1, wherein the high melt temperature fibers comprise between about 15% to about 50% of the total weight of said batting layer of nonwoven batting material.
- 15 7. The moldable composite material according to claim 1, wherein the high melt temperature fibers comprise about 30% of the total weight of said batting layer of nonwoven batting material.
8. The moldable composite material according to claim 1, wherein the batting layer is from about 4 mm thick to about 30 mm thick.
- 20 9. The moldable composite material according to claim 1, wherein the cushion layer is from about 0.5 mm thick to about 3 mm thick.
- 25 10. The moldable composite material according to claim 1, wherein the cushion fibers of said cushion layer comprises holofil fibers.
11. The moldable composite material according to claim 1, wherein said nonwoven batting material is cross direction laid and said nonwoven cushion material is machine direction laid.

12. A method of forming a composite material, comprising the steps of:
blending low melt temperature fibers with high melt temperature fibers;
forming a batting layer web from the combined low melt temperature
fibers and high melt temperature fibers;
5 depositing a cushion layer web of cushion fibers on the batting layer
web;
needling the combination of the batting layer web and the cushion layer
web;
applying a face textile on the cushion layer web with an adhesive
10 therebetween;
heating the combination of the batting layer web, the cushion layer
web, the adhesive, and the face textile to a temperature to
accomplish thermal bonding.
- 15 13. The method according to claim 12, further including the step of pre-
selecting the high melt temperature fibers, the low melt temperature fibers, the
cushion fibers, the adhesive, and the face textile such that all are formed of
material from the same chemical nature.
- 20 14. The method according to claim 12, wherein the step of blending
includes proportioning the blend to have between about 50% and about 85%
of the low melt temperature fibers per total weight of the combined blend of
the low melt temperature fibers and the high melt temperature fibers.
- 25 15. The method according to claim 12, wherein the step of blending
includes proportioning the combined blend to have about 70% of the low melt
temperature fibers per total weight of the combined blend of the low melt
temperature fibers and the high melt temperature fibers.

16. The method according to claim 12, wherein the step of blending includes proportioning the blend to have between about 15% and about 50% of the high melt temperature fibers per total weight of the combined blend of low melt temperature fibers and high melt temperature fibers.

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17. The method according to claim 12, wherein the step of blending includes proportioning the combined blend to have about 30% of the high melt temperature fibers per total weight of the combined blend of the low melt temperature fibers and the high melt temperature fibers.

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18. The method according to claim 12, wherein the step of forming the batting layer web includes forming batting layer web with the low melt temperature fibers, and the high melt temperature fibers laid in the cross direction.

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19. The method according to claim 18, wherein the step of forming the cushion layer web includes forming cushion layer web with the cushion fibers laid in the machine direction.

20. The method according to claim 12, wherein the step of forming the cushion layer web includes forming cushion layer web with the cushion fibers laid in the machine direction.

21. The method according to claim 12, wherein the step of depositing the cushion layer web includes laying the cushion fibers directly on the batting layer web.

22. The method according to claim 12, wherein the step of depositing the cushion layer web includes preforming the cushion layer web and applying the preformed cushion layer web onto the batting layer web.

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